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## Taxonomic notes on *Visitara* Swinhoe (Lepidoptera, Geometridae), with description of a new species from the Philippines

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**Abstract** *Visitara* Swinhoe is downgraded to a subgenus of the genus *Hypephyra* Butler. *Hypephyra* (*Visitara*) *speciosa* sp. n. is described from the Philippines.

**Key words** Lepidoptera, Geometridae, *Visitara*, *Hypephyra*, taxonomy, Philippines.

The small ennomine genus *Visitara* Swinhoe, 1902 has been represented by the following three species: *brunneiplaga* Swinhoe, 1902 from Sumatra and Borneo, *undilinea* Bastelberger, 1908 from Sulawesi, and *charitopis* Prout, 1931 from Luzon, the Philippines. I examined some material of this genus from the Philippines, and found an undescribed species composed of two male specimens, one of which was captured in Mindanao by Dr. M. Owada of the National Science Museum, Tokyo, and the other was taken in Bohol by Mr. T. Endo, Tokyo.

The male genitalia of *Visitara* species appear to be extremely uniform throughout the genus, and show a similar fundamental structure to those of *Hypephyra terrosa* Butler, 1889 from India, China and Japan, the type species of *Hypephyra* Butler, 1889, as figured (Figs. 5-9): the uncus is semitriangular with a pair of spines dorsally; the costal process of valva is long, sclerotized, bearing a digitate projection ventrally; the sacculus is strongly sclerotized, extending into a long free process.

Consequently, I am here placing *Visitara* as a subgenus of the genus *Hypephyra*.

### Genus *Hypephyra* Butler

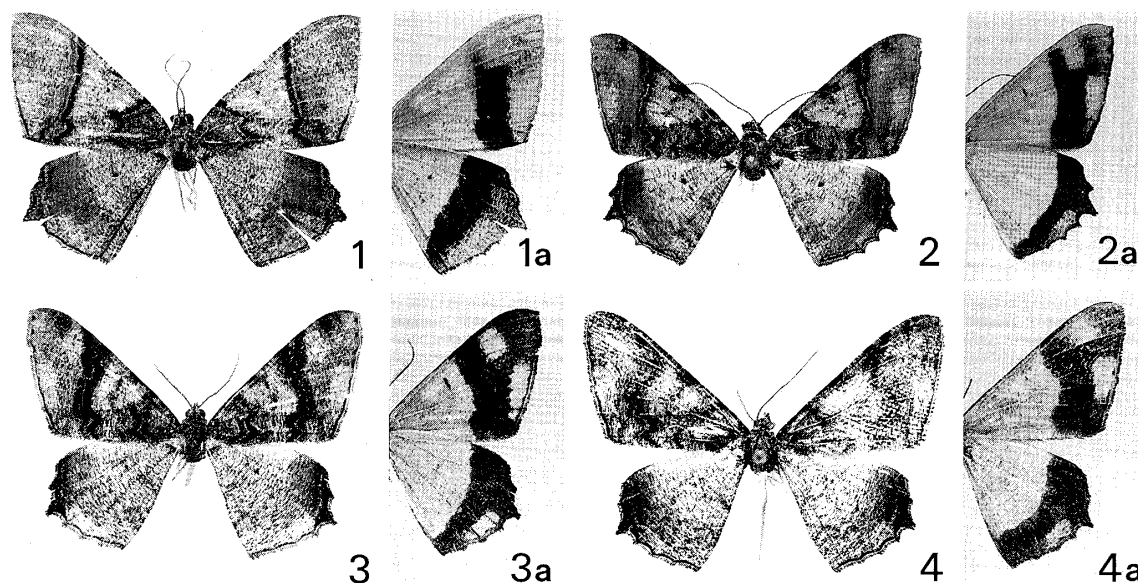
*Hypephyra* Butler, 1889, *Illust. typical Specimens Lepid. Heterocera Colln Br. Mus.* **7**: 20, 101. Type species: *Hypephyra terrosa* Butler, 1889, *ibid.* **7**: 101, pl. 135, fig. 17, by monotypy.

This genus has been known to contain about 10 species ranging in the temperate and tropical zones in Asia. Hampson (1895) stated that the vein 10 ( $R_2$ ) of forewing is absent and 11 ( $R_1$ ) is free in this genus, but it is incorrect. In both *Hypephyra* (s. str.) and *Visitara*, all 12 veins are present:  $R_2$  is free,  $R_1$  is given off from Sc, sometimes connected by a bar with  $R_2$  individually.

### Subgenus *Visitara* Swinhoe, **stat. n.**

*Visitara* Swinhoe, 1902, *Trans. ent. Soc. Lond.* **1902**: 621. Type species: *Visitara brunneiplaga* Swinhoe, 1902, *ibid.* **1902**: 621, by monotypy.

This subgenus can be characterized externally by the longer ciliations of male antenna, and by having a short tail at vein  $M_1$  on the hindwing. In the male genitalia, the sacculus bears a long sclerotized projection at middle instead of at apex as in *Hypephyra* (s. str.), the cornutus is stout, bearing a row of teeth on its distal margin while it is rather slender,



Figs. 1-4. *Hypephyra* (*Visitara*) spp. a: underside. 1. *H. brunneiplaga* (Swinhoe), ♀, Sumatra. 2. *H. charitopis* (Prout), ♂, Luzon. 3. *H. speciosa* sp. n., ♂, holotype, Mindanao. 4. *H. undilinea* (Bastelberger), ♂, Sulawesi.

spine-like in *Hypephyra* (s. str.).

*Hypephyra* (*Visitara*) *brunneiplaga* (Swinhoe), **comb. n.** (Fig. 1)

*Visitara brunneiplaga* Swinhoe, 1902, *Trans. ent. Soc. Lond.* **1902**: 621.

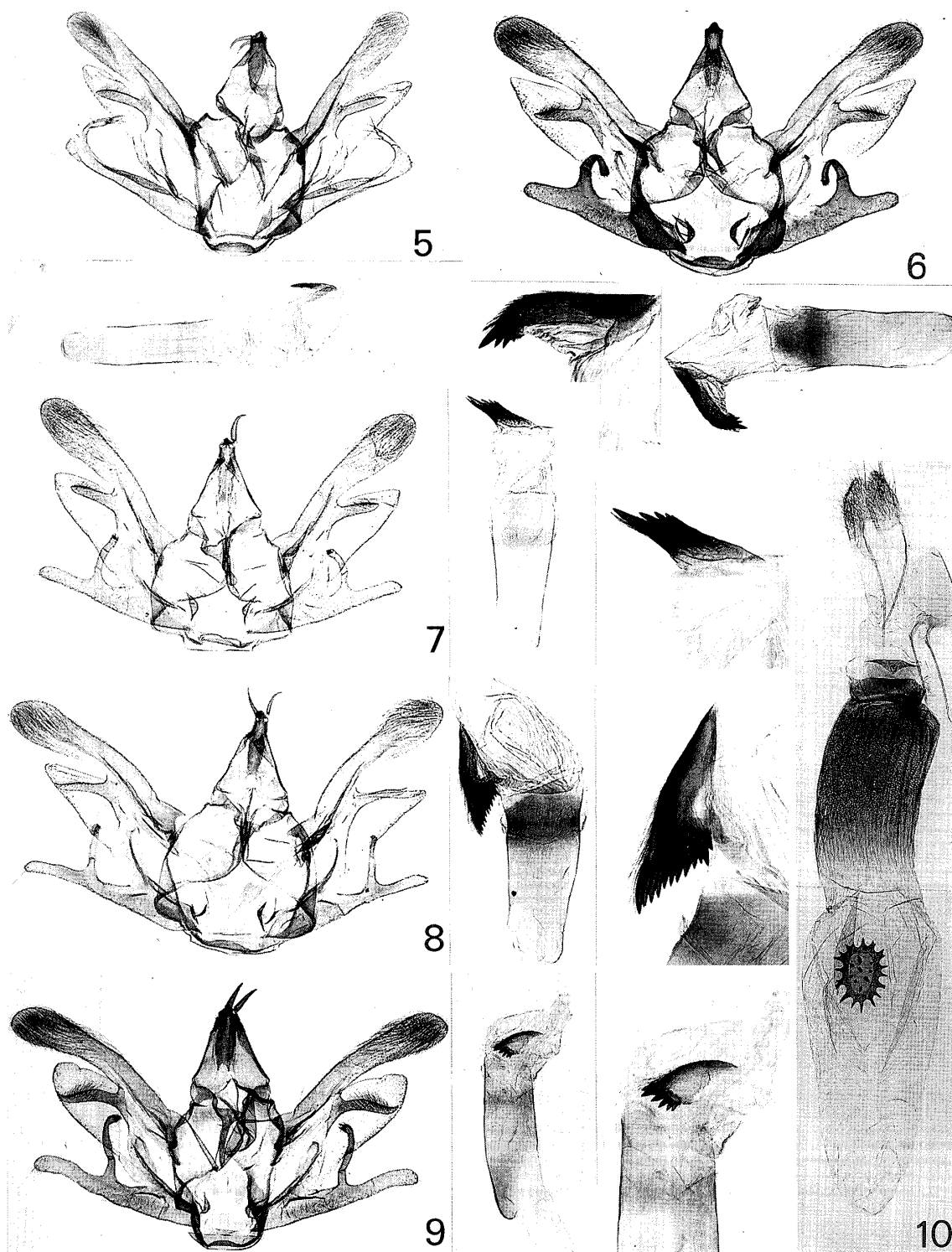
Expanse 37-40 mm. Forewing pale ochereous brown, suffused with rufous and scattered with bluish iridescent scales in basal area; ante- and postmedian fasciae broad, rufous, with a central bluish iridescent line, the former being sharply angled outwardly below cell and above hindmargin, the latter being rather straightish and slightly oblique, angled inwards below vein  $CuA_2$ ; terminal line dark rufous, interrupted in anterior half; discal dot black. Hindwing ochereous brown, striated with fuscous brown, shaded with fuscous in distal half; discal dot black. Underside ochereous yellow; subterminal band broad, vanished from vein  $M_1$  towards costa in forewing, gradually narrowed towards hindmargin in hindwing; discal dot on both wings minute, fuscous brown.

Male genitalia (Fig. 6). Costal process of valva rather short and broad; sacculus rather short and stout, with a median projection long and stout. Cornutus long and stout, bent before apex, bearing a row of long teeth on distal margin.

Specimens examined. Borneo, Sabah, Poling, 1 ♂, 11. viii. 1987 (K. Maruyama). Sumatra, Karo Hill, 1 ♀, 15. iii. 1978.

Distribution. Sumatra, Borneo.

This species was described upon male(s) from Sumatra and female(s) from Borneo, and no further locality has yet been recorded. The male genitalia were already illustrated by Holloway (1978, fig. 584) based on a specimen from Borneo.



Figs. 5-9. Male genitalia of *Hypephyra* spp. 5. *H. terrosa* Butler. 6. *H. brunneiplaga* (Swinhoe). 7. *H. charitopsis* (Prout). 8. *H. undilinea* (Bastelberger). 9. *H. speciosa* sp. n.

Fig. 10. Female genitalia of *Hypephyra* (*Visitara*) *charitopsis* (Prout).

*Hypephyra (Visitara) charitopsis* (Prout), **comb. n.** (Fig. 2)

*Visitara charitopsis* Prout, 1931, *Novit. zool.* **37**: 33.

Expanse 31–35 mm. Smaller than *brunneiplaga*; termen of hindwing slightly sinuous, with the tail at vein  $M_1$  rather short. Forewing with antemedian fascia a little less sharply angled; postmedian fascia dilated towards costa, slightly sinuous from costa to vein  $CuA_2$ , then strongly dentate to hindmargin. Hindwing with distal shade narrower. Underside pale cream, less yellowish; subterminal band narrower, different in shape as in Figs. 1a and 2a.

Male genitalia (Fig. 7). Costal process of valva slightly longer and slenderer than in *brunneiplaga*, with a ventral projection rather short and somewhat ampler at apex; sacculus slenderer, with a median projection shorter and slenderer. Cornutus much shorter, with longer teeth on distal margin.

Female genitalia (Fig. 10). Ductus bursae broad, lightly sclerotized in caudal three-fourths. Corpus bursae elongate, membranous; signum roundish with serrate margin. Specimens examined. Philippines, Luzon, Banaway, 5 ♂ 2 ♀, 20–28. i. 1986.

Distribution. Philippines (Luzon).

In appearance this and the following two species are more similar to one another than to *brunneiplaga*, and *charitopsis* shows a closer resemblance to *speciosa* sp. n. rather than to *undilinea*. However, from the male genitalia the relationship among these four species is unclear.

*Hypephyra (Visitara) speciosa* sp. n. (Fig. 3)

Expanse 34–37 mm. Slightly larger than *charitopsis* in size. Forewing with postmedian fascia more oblique than in *charitopsis*. Hindwing much paler, more densely striated with fuscous, having a characteristic terminal dark rufous patch from costa to vein  $M_3$ . Underside pale cream, with an apical large fuscous brown patch; discal dot elongate, dash-like; subterminal band on forewing broader than in *charitopsis* in apical third.

Male genitalia (Fig. 9). Nearly identical with those of *charitopsis*. Central process of gnathos longer than in the other congeners. Costal process of valva with a ventral projection longer than in *charitopsis*, sinuate, bluntly pointed at apex; sacculus longer, with a longer median projection. Cornutus rather small, with shorter teeth on distal margin.

Holotype. ♂, Philippines, Mindanao, South Cotabato, Maitum, Gasy (700 m), 12–13. viii. 1985 (M. Owada), preserved in the National Science Museum, Tokyo. Paratype. Philippines, Bohol, 1 ♂, 16. iii. 1977 (T. Endo).

Distribution. Philippines (Mindanao, Bohol).

*Hypephyra (Visitara) undilinea* (Bastelberger), **comb. n.** (Fig. 4)

*Visitara undilinea* Bastelberger, 1908, *Ent. Z., Frankf. a. M.* **22**: 61.

Expanse 39 mm. Larger than the preceding two species in size. Postmedian fascia of forewing more strongly sinuous than in *speciosa*. Hindwing much paler in proximal half, densely striated with fuscous as in *speciosa*; terminal patch as in *speciosa*, but purplish

brown instead of rufous. Underside nearly as in *speciosa*, but discal dot smaller; subterminal band on hindwing broader posteriorly.

Male genitalia (Fig. 8). Costal process of valva rather short as in *charitopsis*, with a ventral projection slightly sinuous, bluntly pointed at apex; sacculus a little shorter and slenderer than in *speciosa*, with a median projection as in *charitopsis* in length. Cornutus large, dilated distally, with rather long teeth on distal margin.

Specimen examined. North Sulawesi, Nr Tondano, Mt. Makaweiben (1,000 m), 1 ♂, xii. 1988.

Distribution. Sulawesi.

Apparently an endemic species to Sulawesi. I was able to examine only one worn male specimen. A fine figure of moth was given in Debauche (1941, pl. 1, fig. 6).

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### 摘 要

*Visitara* 属の分類上の地位の変更とフィリピン産の1新種 (矢崎克己)

東南アジアのエダシャクの小属 *Visitara* は、雄交尾器形態が *Hypophyra* 属 (模式種は *terrosa* Butler ウラキトガリエダシャク) と基本的に差がないことから、その亜属とした。*Visitara* 亜属には、ボルネオ、スマトラの *brunnei-plaga* Swinhoe, セレベスの *undilinea* Bastelberger, フィリピン (ルソン島) の *charitopsis* Prout と、フィリピン (ミンダナオ島, ボホール島) 産の新種 *speciosa* Yazaki の4種が含まれる。

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